

JPRS-TEP-92-010  
29 JUNE 1992



**FOREIGN  
BROADCAST  
INFORMATION  
SERVICE**

# ***JPRS Report***

# **Epidemiology**

**DISTRIBUTION STATEMENT A**

**Approved for public release;  
Distribution Unlimited**

19980112 101

REPRODUCED BY  
U.S. DEPARTMENT OF COMMERCE  
NATIONAL TECHNICAL INFORMATION SERVICE  
SPRINGFIELD, VA. 22161

**DTIC QUALITY INSPECTED 6**

# Epidemiology

JPRS-TEP-92-010

## CONTENTS

29 June 1992

[Recent materials on AIDS is being published separately in a later issue.]

### SUB-SAHARAN AFRICA

#### BURUNDI

- Six Deaths From Cholera  
*[Bujumbura Radio-Television Nationale du Burundi Radio, 7 May 92]* ..... 1

#### CAMEROON

- Meningitis Epidemic Growing in Northern Province  
*[Yaounde CAMEROON TRIBUNE, 27 Feb 92]* ..... 1  
 Uneven Spread of Meningitis in Northern Departments  
*[Yaounde CAMEROON TRIBUNE, 9 Mar 92]* ..... 1

#### GHANA

- Meningitis Immunization Under Way in Upper West  
*[Ibrahim Awal; Accra PEOPLE'S DAILY GRAPHIC, 11 Mar 92]* ..... 1  
 Meningitis Cases Decline in Bolgatanga  
*[Abdul Aziz; Accra PEOPLE'S DAILY GRAPHIC, 20 Mar 92]* ..... 2

#### MOZAMBIQUE

- Fourteen Cholera Deaths *[Maputo Radio Mozambique Network, 17 Apr 92]* ..... 2  
 Renamo Calls For Urgent Relief Aid as Thousands Face Death  
*[Cristovao Soares; Voz da Renamo, 2 May 92]* ..... 2

#### NAMIBIA

- Foot and Mouth Cases in Kavango  
*[Mbatjiua Ngavirue; Windhoek THE NAMIBIAN, 15 Apr 92]* ..... 2

#### NIGERIA

- Cholera Epidemic Continues in Five States *[Akin Jimoh; Lagos THE GUARDIAN, 4 Mar 92]* ..... 3  
 Guinea Worm Cases Decline 29 Percent *[Akin Jimoh; Lagos THE GUARDIAN, 11 Mar 92]* ..... 3  
 Outbreak of Meningitis *[Lagos Radio Nigeria Network, 23 Apr 92]* ..... 4  
 Unnamed Disease Kills Victims Within Hours *[Kaduna NEW NIGERIAN, 4 May 92 p 16]* ..... 4

#### TANZANIA

- Serious Nationwide Cholera Epidemic Continues *[Nairobi THE KENYA TIMES, 6 Apr 92]* ..... 4  
 Cholera Outbreak in Rukwa, Mbozi Districts  
*[Dar es Salaam Radio Tanzania Network, 3 May 92]* ..... 5

#### UGANDA

- Seventy Cholera Deaths in Kasese District  
*[Sam Mukalazi; Kampala THE NEW VISION, 6 Mar 92]* ..... 5  
 Arua District Out of Meningitis Vaccine  
*[Jimmy Adriko; Kampala THE NEW VISION, 7 Apr 92]* ..... 6  
 Major Decline in Sleeping Sickness Cases *[Kampala THE NEW VISION, 8 Apr 92]* ..... 6

Anthrax Outbreak in Kasese District [John B.B. Nzinjah; Kampala THE NEW VISION, 2 Apr 92]	7
--	---

## ZAMBIA

Malaria Leading Killer [Lusaka TIMES OF ZAMBIA, 5 Mar 92]	8
Kitwe Prison Hit by Cholera, Dysentery [Lusaka TIMES OF ZAMBIA, 15 Mar 92]	8
Over 5,500 Cholera Cases, 544 Deaths [Johannesburg Radio RSA, 2 May 92]	8
'Mysterious' Disease Kills 35 People on Copperbelt [Mike Hall; London BBC World Service, 29 May 92]	8
Cholera Death Toll in Luanshya Reaches 62 [Johannesburg SAPA, 2 Jun 92]	9
More Than 2,000 Cattle Dead From Corridor Disease [Lusaka TIMES OF ZAMBIA, 19 Apr 92]	9

## ZIMBABWE

Cattle Deaths From Rabies Caused by Jackals [Harare THE HERALD, 5 Mar 92]	10
Midlands Swine Fever Under Control [Harare THE HERALD, 27 Apr 92]	10

## EAST ASIA

### SOUTH KOREA

Second Cholera Case in 1992 in Seoul [Seoul YONHAP, 4 May 92]	11
Two More Koreans Infected With Cholera [Seoul YONHAP, 7 May 92]	11
Tourist Returns From Thailand Infected With Cholera [Seoul YONHAP, 30 May 92]	11

### LAOS

Trash Blamed for Epidemics; Japan Aid [Vientiane VIENTIANE MAI, 25 Feb 92]	11
Diarrhoea, Measles Spread in Sekong Province [Vientiane KPL, 20 May 92]	12
Outbreak of Animal Epidemics Expected Due to Weather [Vientiane KPL, 9 May 92]	12

### THAILAND

Incidence of Adult Chicken Pox [Bangkok THAI RAT, 16 Mar 92]	12
Cholera Outbreak Halts Cambodian Refugee Repatriation [Hong Kong AFP, 23 Jun 92]	12
Cholera Causes UN To Increase Repatriation From Smaller Refugee Camps [Hong Kong AFP, 24 Jun 92]	13
Hog Foot, Mouth Disease Threatens Exports [Bangkok DAILY NEWS, 14 Mar 92]	13

### VIETNAM

Over 2,000 Persons in Quang Hoa Contract Acute Malaria [Hanoi Vietnam Television Network, 29 Apr 92]	14
VNA Notes Resurgence of Malaria [Hanoi VNA, 1 May 92]	14
Cholera Epidemic Hits Hue; 1000 Cases Reported [Hong Kong AFP, 29 May 92]	15

## EAST EUROPE

### YUGOSLAVIA

Serbs in Kupres Area 'Panicking'; Typhus Outbreak [Zagreb Radio Croatia Network, 17 May 92]	16
--	----

## LATIN AMERICA

### CUBA

RESEARCH Center Tests Fish for Cholera Virus [Havana Radio Reloj Network, 14 May 92]	17
--	----

## NEAR EAST & SOUTH ASIA

### EGYPT

- Malaria Mosquitoes Spotted in South [Cairo AL-JUMHURIYAH, 10 Jan 92] ..... 18

### INDIA

- Malaria Resurgence Brings Kala Azar  
[Uma Vasudeva; New Delhi INDIAN EXPRESS, 5 Mar 92] ..... 18  
Statistics on Brain Fever Deaths in Madhya Pradesh [New Delhi PATRIOT, 6 Mar 92] ..... 18  
Epidemic Break Out in Tamil Refugees' Camps [Madras INDIAN EXPRESS, 19 Mar 92] ..... 18  
Enteric Disease 'Rages' in Tripura [Bombay THE TIMES OF INDIA, 24 Apr 92] ..... 19  
At Least 89 Dead, Over 2,300 Affected by Cholera in Bihar  
[Delhi All India Radio Network, 2 Jun 92] ..... 19

### ISRAEL

- Malaria Found Among Ethiopian Immigrants [Hila Tov; Tel Aviv HADASHOT, 8 May 92] ..... 19  
Hoof-and-Mouth Disease Breaks Out in Northern Israel [Jerusalem Qol Yisra'el, 23 May 92] ..... 19

## CENTRAL EURASIA

- New Uzbek Center to Treat Zaaminellosis [Aleksandr Polikarpov; Moscow RADIKAL, Feb 92] ..... 20  
Hemorrhagic Fever in Yelabuzhskiy Rayon [Ye. Grigoryev; Moscow TRUD, 5 Mar 92] ..... 21  
Open Air Food Stalls Worry Health Officials [Helsinki HUFVUDSTADSBLADET, 27 Mar 92] ..... 21  
Brucellosis Outbreak in Eastern Kazakhstan [Sergey Yermeyev; Moscow IZVESTIYA, 22 Apr 92] ..... 22  
Several Cases of Cholera Registered in Moscow [Moscow INTERFAX, 7 May 92] ..... 23

## WEST EUROPE

### FRANCE

- Swine Fever Detected in Boar Population [Michel Sousse; Paris LIBERATION, 20 Apr 92] ..... 24

### SWEDEN

- Authorities Prepare for Swine Flu Entry [Stockholm SVENSKA DAGBLADET, 7 Apr 92] ..... 25

### UNITED KINGDOM

- Restrictions Imposed to Control Bee Parasite  
[David Brown; London THE DAILY TELEGRAPH, 29 Apr 92] ..... 25

## INTERNATIONAL AFFAIRS

- Cholera Incidence [N. Shevtsov; Moscow TRUD, 30 Jan 92] ..... 26

## BURUNDI

### Six Deaths From Cholera

AB1005111592A Bujumbura Radio-Television  
Nationale du Burundi Radio in French 1800 GMT  
7 May 92

[Editorial Report] A cholera "epidemic" has been spreading since 27 April in southwest Burundi. There have been 284 cases registered and six deaths.

## CAMEROON

### Meningitis Epidemic Growing in Northern Province

92WE0393B Yaounde CAMEROON TRIBUNE  
in French 27 Feb 92 p 4

[Text] Since the beginning of February 1992 there has been an epidemic of meningitis in Extreme-Nord Province. It has particularly affected three departments: Diamare, Mayo-Sava, and Mayo-Tsanaga. The constantly rising number of cases of the disease so far recorded is now approaching 3,000. By 25 February 2,428 cases had been reported, including 196 deaths. By 26 February the total number of cases rose to 2,705, including 249 deaths. The principal victims were children under 15 years of age.

In reaction to this epidemic the Ministry of Health sent 200,000 doses of vaccine to the affected areas. Since 23 February a team of epidemiologists has been working to help medical teams at the local level. Medical teams have been organized to take charge of and treat cases already reported. However, in addition to these arrangements the deputy director of preventive and rural medicine has recommended to the people to practice bodily hygiene several times each day.

### Uneven Spread of Meningitis in Northern Departments

92WE0393A Yaounde CAMEROON TRIBUNE  
in French 9 Mar 92 p 7

[Text] The epidemic of meningitis in Extreme-Nord Province has not spread evenly in the six departments of the area. No case has been reported in the department of Longone-et-Chari; four cases have been reported in the department of Mayo-Danay; and 17 cases, in Kaele. The most serious centers of the disease have been found principally in three departments: Diamare, Mayo-Sava, and Mayo-Tsanaga, where the disease has affected more than 1,000 persons.

One fact may be noted: the countryside has been the most affected, with the highest number in the mountainous areas. The epidemic started from two areas:

- Mokou in the department of Mayo-Tsanaga, later spreading to Zamay and Soulede;

- Tokombere and Ouldeme in the department of Mayo-Sava.

The disease spread very rapidly, particularly in February, in several villages in the department of Diamare: Bougoum, Godola, Dogba, Gaouei, Gazawa, etc. Although the provincial medical team was taken by surprise, it organized itself rapidly to deal with the epidemic. Two forms of treating the disease were combined.

Vaccinations have been carried out in each center. Certain departmental teams have arranged for assistance from the provincial level. This was the case with the departments of Mayo-Sava and Diamare. On the other hand, the medical center at Tokombere in the department of Mayo-Sava proved that it could handle the epidemic and was able to vaccinate people by itself.

In terms of treatment, the health centers were also put to work. To deal with the large number of sick persons coming from Massakal and Mindia, we saw that teams from Gazawa proceeded to this area.

Now there is a good prospect that the epidemic has been brought under control.

Vaccines, which constituted the greatest obstacle to the spread of the disease, are now available, thanks to the good will of many humanitarian, religious, and charitable organizations that rushed into Extreme-Nord Province, impelled by feelings of solidarity. The fact remains that in view of the epidemics of 1991 and 1992 everything had to be done to avoid other surprises in the future. Dr. Aly Toupouri said: "The solution requires that each chief of departmental service should develop a coherent and precise annual plan of action."

## GHANA

### Meningitis Immunization Under Way in Upper West

92WE0399B Accra PEOPLE'S DAILY GRAPHIC  
in English 11 Mar 92 p 1

[Article by Ibrahim Awal, Wa]

[Text] The Epidemiology division of the Ministry of Health has embarked on a mass immunisation exercise against cerebro spinal meningitis (CSM) in the Upper West Region.

The beginning of the mass immunisation exercise has come in the wake of the intensification of the heat period due to changes in climatic conditions during which period the CSM disease is very common in the region.

Personnel of the division and the Maternal and Child Health (MCH) department are visiting schools and communities throughout the region to immunise people against the disease alongside educating them on how to avoid catching it.

An official of the Epidemiology division at Wa told the GRAPHIC that over 10,000 people including women and children have so far been immunised under the exercise which began about a month ago.

The official, Mr. James Maanawmini explained that public response to the exercise has been encouraging and urged community leaders to encourage their people to get immunised.

He appealed to the people to avoid crowded rooms and ensure enough ventilation in order to reduce the risk of getting the disease.

Meanwhile, seven cases of CSM have been reported as at the end of January, this year in the region with no death.

#### **Meningitis Cases Decline in Bolgatanga**

92WE0433B Accra PEOPLE'S DAILY GRAPHIC  
in English 20 Mar 92 pp 1, 8, 9

[Article by Abdul Aziz: "19 Cases of CSM Recorded in Bolga District"]

[Text] Health institutions in the Bolgatanga District of the Upper East Region have recorded 19 cases of Cerebro-Spinal Meningitis (CSM) with three deaths in the district.

The low rate of deaths since the dry season set in this year has been attributed to the early health education and mass immunisation at schools and health centres.

Dr. Dominic Quaye, Bolgatanga District Medical Officer, who disclosed this to the GRAPHIC said the strategy of immunising school children first has helped spread the message of the CSM to the community.

He said the exercise has also protected the district in particular from outsiders arriving in the district with the CSM virus.

He said 494 vials of CSM vaccines with each vial serving 50 people have been used in the exercise.

He however said that as of last week the district had run out of the vaccines thereby bringing to a halt the school mass immunisation exercise.

He said report about the shortage has already been made to the appropriate authorities to enable the mass immunisation team to resume the programme.

He said majority of the school children in the district have already been vaccinated and after that exercise the team will move to workplaces.

He advised people to avoid overcrowding in single rooms where ventilation is poor and observe strict hygiene.

## **MOZAMBIQUE**

### **Fourteen Cholera Deaths**

MB0305190592A Maputo Radio Mozambique Network  
in Portuguese 1030 GMT 17 Apr 92

[Editorial Report] Seven Zambezia Province districts have been affected by the cholera epidemic that has hit certain parts of the country. Alfredo Azevedo, the official in charge of the Zambezia Provincial Health Directorate's Cholera Department, reports that 981 cholera cases, and 14 deaths, have been recorded.

### **Renamo Calls For Urgent Relief Aid as Thousands Face Death**

MB0205071692 (Clandestine) Voz da Renamo  
in Portuguese 0500 GMT 2 May 92

[Text] Cristovao Soares, chief of the Health Department in the Mozambique National Resistance [Renamo], said in Gorongosa on 30 April that his sector is suffering operational difficulties. In addition to the famine caused by the drought afflicting not only Mozambique, but southern Africa as a whole, the residents are seriously threatened by diseases which are making gigantic inroads into Renamo-administered areas.

Cristovao Soares said immediate response is required—namely, humanitarian assistance provided by the various international agencies to those under threat. So far, this has been prevented by the inhuman and murderous Mozambique Liberation Front [Frelimo] regime. Should assistance not be provided, thousands upon thousands of Mozambicans will die of starvation and lack of medical assistance in the next few weeks.

The Renamo Health Department chief said that diseases like bilharzia, gonorrhea, asthma, tuberculosis, rheumatism, allergies, thrombosis, and others are afflicting thousands upon thousands of Mozambicans in areas administered by Renamo. Such a critical situation should be dealt with at once. Time has come for Frelimo to end its hold on the 150 humanitarian agencies based in Maputo, and to put the interests of the people first. Furthermore, Frelimo should seriously look at the situation.

## **NAMIBIA**

### **Foot and Mouth Cases in Kavango**

92WE0481A Windhoek THE NAMIBIAN in English  
15 Apr 92 p 3

[Article by Mbatjiua Ngavirue: "Foot and Mouth Hits Kavango; Meat Exports Safe"]

[Text] The Ministry of Agriculture yesterday announced an outbreak of foot and mouth disease in the Kavango region. However, the outbreak of the disease will not apparently affect Namibian meat exports.

The foot and mouth cases occurred about 10 kilometres from the Kavango river in the eastern part of the Kavango.

According to a statement released by the Ministry, diagnosis of the animals was complicated by the fact that they showed symptoms of photosensitisation.

As the problem had occurred north of the Cordon Fence, or so-called "red line", meat exports were not affected.

The Ministry of Agriculture nevertheless made an urgent appeal to the public to support control measures that may be instituted by the Directorate of Veterinary Services.

Permanent secretary of Agriculture Vilho Nghipondoka added that this was the first confirmed case of foot and mouth disease in that region since 1968.

## NIGERIA

### Cholera Epidemic Continues in Five States

92WE0404C Lagos *THE GUARDIAN* in English  
4 Mar 92 p 3

[Article by Akin Jimoh]

[Text] About 250 people have been reported killed in five states—Akwa Ibom, Anambra, Cross River, Rivers and Yobe.

Cross River State is the worst hit, with a record of about 150 deaths by last week. The attack is most severe in Abayom Nde, Edodor, Nta-Nsele, Ajasso and Etung in Ikom council area.

The outbreak has been traced to water pollution caused by fishermen who contaminate supply sources with chemicals.

In Akwa Ibom State, more than 150 persons in the Tin council area and Ibam Edet, Akpayak and Odot have been affected.

In addition to cholera, chicken pox and measles have pushed the death toll in Ifite-Ogwani, Anambra State to about 90.

The diseases are also said to be spreading to neighbouring communities of Igbakwu, Anaku, Umumbo, Umuerum, Oma, and Umueje.

Health and Human Services Minister Professor Olikoye Ransome-Kuti visited Cross River State two weeks ago to assess the situation. The ministry has also dispatched epidemiologists to the affected areas.

Professor Ransome-Kuti, in Cross River State, advised the victims to use the Oral Rehydration Therapy (ORT) to fight the disease. He asked the villagers to cultivate such hygienic habits as boiling their water before drinking, covering their food and disposing properly human faeces.

Ministry sources said the National Task Force on Cholera—an organisation responsible for controlling cholera outbreak—is set to fight the disease with the N22.5 million in set to National Control of Diarrhoeal Diseases Implementation Plan.

Under the plan, a three-phase control strategy has been adopted which focuses on reducing death and disability in children under five years of age.

### Guinea Worm Cases Decline 29 Percent

92WE0404B Lagos *THE GUARDIAN* in English  
11 Mar 92 p 3

[Article by Akin Jimoh]

[Text] A 29 percent decrease in reported cases of guinea worm has been achieved in the last two years, Health and Human Services Minister Professor Olikoye Ransome-Kuti, has said.

Specifically, the number of reported cases fell from 394,732 to 274,875.

Briefing reporters yesterday on the fourth African Regional Conference on Guineaworm Eradication coming up in Enugu on Tuesday, he said four states—Edo, Akwa Ibom, Anambra and Kaduna—reported no local transmission of guineaworm.

As at last year, Enugu State had the highest number of cases (64,708), a 73 percent decrease compared to the 1988 figure of 233,000.

Ondo and Sokoto States recorded 40,485 and 50,452 cases.

Besides these three states with the highest number of cases, Professor Ransome-Kuti expressed optimism that the four states that reported no local transmission "will no doubt be joined, this year, by the Federal Capital Territory, Abuja, Adamawa, Taraba, Kogi, Ogun, Osun and Imo States."

He said Benue, Katsina, Kwara, Bauchi, Borno, Cross River, Abia, Niger, Oyo and Ondo States reported a significant decrease in cases.

However, "there are a few states whereby no progress was made during the year." They include Delta, Edo, Kano and Rivers mainly because "they did not put in the required effort."

Highlighting efforts towards total eradication of the disease by 1995, the minister said over 6,200 voluntary village-based health workers were trained in the affected villages "to provide monthly surveillance reports to the local government areas on the number of new cases occurring in their villages and to perform a number of intervention activities."

They would also be trained periodically for additional knowledge "to build their skills in dressing ulcers and

community mobilisation activities that could hasten the demise of guinea worm in their villages."

National Youth Service Corps members have been deployed to 81 most highly endemic council areas where over 90 percent of the disease occurred, he added.

### Outbreak of Meningitis

*AB1005111592C Lagos Radio Nigeria Network in English 0600 GMT 23 Apr 92*

[Editorial Report] An outbreak of meningitis has been reported in Sokoto State. The government gave "directives" to control the disease.

### Unnamed Disease Kills Victims Within Hours

*AB1005111592B Kaduna NEW NIGERIAN in English 4 May 92 p 16*

[Editorial Report] An unnamed disease which kills its victims within hours of attack, has been reported in four villages in the Ibaji area of Idah, Kogi State. The victims suffer from "running stomach" accompanied by pain, vomiting, and dehydration.

## TANZANIA

### Serious Nationwide Cholera Epidemic Continues

*92WE0479A Nairobi THE KENYA TIMES in English 6 Apr 92 p 6*

[Article: "New Cholera Outbreak Leaves Hundreds Dead"]

[Text] Scores of grieving families in Tanzania are coming to terms with a massive outbreak of cholera which has claimed an estimated 275 lives and confined more than 1,570 people to hospital beds in less than 12 weeks.

The death toll continues to grow each week as new official statistics are released by the authorities. At the time of writing, the chief medical officer, Dr. S. Simba, said that a total of 336 people had died of cholera in the five regions of the country. "Many other regions have yet to submit their death toll figures," he said.

Health Minister Professor Philemon Sarungi said figures available showed 250 people had died from cholera last year. But he conceded that "many more" must have died without reporting to hospitals.

People's decision to shun professional medical attention is not surprising given the state of Tanzania's drugless hospitals.

The worst hit region is Dodoma, the base of the new political capital, where 1,203 cases were reported, 156 of whom died. Deaths were also reported in Iringa and Dar es Salaam.

The Dar es Salaam Regional Commissioner, Ms. Mary Chipungahelo said that a total of 118 cholera patients had been admitted to the city's hospitals.

Dar es Salaam has been bedevilled with its own problems of cleanliness.

Its garbage disposal problems have left a lot to be desired. President Ali Hassan Mwinyi recently launched a campaign to keep Dar es Salaam clean. But barely a month after the campaign got underway, the government-owned media noted that "the momentum of the presidential campaign is dying out." It urged the city residents to keep Dar es Salaam tidy "for our own survival."

The authorities banned sales of unhygienic local brew and foods in the streets. Sales of coconuts, local beer, fruit juices, ice cream and peeled fruit have been banned alongside foodstuffs including chips, fried fish, buns, rice bread and roast meat in roadside kiosks.

Within days, it became evident that the new rules were openly being flouted. Allegations were rife that city officials were regularly collecting money from vendors and kiosk owners in return for being allowed to carry on their business.

The government-owned daily proved its point by publishing pictures of "business as usual" for vendors the authorities had banned from selling their foodstuffs.

The alleged failure on the part of the city officials prompted the Dar es Salaam District Commissioner Generali Ulimwengu to warn city residents to carry out Ms. Chipungahelo's directives. He said that it was discouraging to see the official rules being neglected by the city council itself.

In the Rukwa Region, said a spokesman for the Department of Health, 904 people were suffering from cholera, 148 of whom died. He said that five businessmen had provided trucks to collect the increasing load of garbage lying uncollected in Sambawanga town. The local authority there had failed to keep the streets clean.

In Manyoni District, eight cholera patients were given first aid at a health centre. One of them died while being transported to the district hospital. Two others died on admission to the hospital while two others walked away from the hospital while still under treatment.

In Iringa, southern Tanzania, health ministry officials told Newslink Africa that 50 cholera patients died in two months. Several emergency centres have been opened for patients. The outbreak was blamed on unhygienic conditions in Iringa and shortage of clean water in the town. The town with a population of 90,000 requires 4.4 million gallons of water daily. They receive only 1.5 million gallons. This has forced residents to drink water from contaminated shallow wells.

The District Commissioner of Dodoma, Professor Diamond Mwaga, banned all public auctions as part of



anti-cholera measures. He also banned the sale of local brew, yoghurt, fruits, fish and buns. He disclosed that 16 people had died from cholera.

Regional authorities in Zanzibar directed the island's municipal council to enforce its by-laws on environmental cleanliness in a bid to check the spread of cholera. He warned against a possible outbreak of the disease because of unchecked dumping of garbage, overflowing cess pits and blocked storm drains.

In the Lake Victoria town of Mwanza, the regional authorities said that 27 cholera patients had been admitted to the town's two hospitals. Their treatment was delayed because of red tape in the hospital where results of tests on them had been held up.

John Kyambwa, Mwanza's regional development director, lamented: "When it takes so long to establish the infection we should be warned that the victims may die even before anything is known about them."

Reports from the Tarime on the border with Kenya, said the situation there was alarming as there was no supply of drugs and water at the dispensaries. Patients were forced to sleep outside due to lack of space. A primary school was turned into an emergency ward as the number of patients increased.

More than 80 families who had no toilets in their homes were given six days to build them or face legal action. Ironically, even those families who have toilets built in their homes were not using them preferring instead to use open space. In Tarime, it is a taboo for parents and children to share toilets.

Serious problems of a lack of hygiene abound throughout Tanzania. In Dar es Salaam, for example, there is not a single public toilet, drainage systems are clogged, garbage piles keep on growing every day, water pipes give out air instead of clean drinking water and domestic waste water oozes on to the streets.

What lacks in countries like Tanzania is a proper infrastructure for the supply of clean drinking water, sanitation facilities and a general lack of information on hygiene. With proper planning and funds, Tanzania can conquer diseases like cholera and avoid unnecessary loss of lives.

#### **Cholera Outbreak in Rukwa, Mbozi Districts**

*AB1005111592D Dar es Salaam Radio Tanzania  
Network in Swahili 1700 GMT 3 May 92*

[Editorial Report] Six people have died and four others hospitalized following a cholera outbreak in Rukwa district. Five others have died in Mbozi district.

## **UGANDA**

### **Seventy Cholera Deaths in Kasese District**

*92WE0400B Kampala THE NEW VISION in English  
6 Mar 92 p 13*

[Article by Sam Mukalazi]

[Text] Over 65 people, including nine refugees from Zaire, have died following an outbreak of Cholera in Kasese District.

The District Medical Officer for Kasese, Dr. Kanya Basaza, confirmed that 65 people had died at the beginning of this week. By February 27, another five had died, bringing the number to 70 since the outbreak of the disease last November.

Dr. Basaza said about 740 people had been treated and discharged. The most hit areas are Bukonjo county and Karambi and Bwera sub-counties near the Uganda-Zaire border. But Bwera was said to be the worst hit area.

Bwera health centre, one kilometre from Bwera township, had 25 people under treatment by Thursday, 12 of whom were in a critical condition. Two of them died on Thursday morning.

The health centre has a capacity of only eight to ten beds, and most of the patients are being treated on the verandah and floor. Health workers in the area suspected that the worsening of the situation was because of polluted water resulting from overcrowding following the refugee influx from Zaire in the past few months.

In a bid to curb the disease, the District Medical Office has set up 31 health sub-units in various villages, which are manned by health workers assisted by RCs [expansion unknown]. The units are being supplied with intravenous fluids and antibiotics by the office.

But the DMO [District Medical Officer] said there was a shortage of the necessary drugs saying 16 people died between February 10 and February 17 because there was no supply of intravenous fluids [sentence as published]. He said this was because of the breakdown of the unit at Kagando hospital which prepares the fluids.

According to the Officer in charge of Karambi dispensary, some people had died because they had reported too late at the dispensary for any effective treatment. Most of these were reported to have come from the Rwenzori mountains.

Cases of cholera were first reported in Butembo county in Zaire and the most hit areas were near the common border. The disease appeared in Kasese after hundreds of Zaireans crossed into Uganda.

According to RCs in the area, there are up to 2,000 refugees from Zaire in the villages bordering the country. Most of these are crowded with Ugandan families where they have friends or relatives.

### **Arua District Out of Meningitis Vaccine**

92WE0460B Kampala THE NEW VISION in English  
7 Apr 92 p 16

[Article by Jimmy Adriko]

[Text] Arua District has no more meningitis vaccines and drugs. But meningitis still remains widespread in the area since its outbreak in 1990.

The Arua District Medical Officer, Dr. Geoffrey Dragudi, said this is an exclusive interview in Arua.

He said that by March this year, 583 meningitis patients were admitted in various health units in the district. He said that the number of such patients in the villages could not be ascertained as there were no proper records. Dragudi said Aringa and Vurra counties are the most affected followed by Upper Madi county.

On the current shortage of drugs and vaccines, Dragudi said the supplies from the Central Medical Stores have been irregular and in most cases not enough to contain the situation. Because of the plight of the people, the Non-Governmental Organisations (NGOs) who are operating in the district, occasionally donate drugs and vaccines to ease the shortage.

The DMO named the NGOs as Save the Children Fund, the Italian CUAMM, and the International Islamic Relief Organisation. They also give logistical support for the administration of the drugs and vaccines.

With the coming of the rains, the DMO added that the cases are bound to reduce saying, "the dry weather facilitates the spreading of the disease."

### **Major Decline in Sleeping Sickness Cases**

92WE0460A Kampala THE NEW VISION in English  
8 Apr 92 p 4

[Words in boldface and italics as published]

[Text] Out of 30 million square kilometres of land available on the African continent, the tsetse fly, which transmits the fatal trypanosomiasis disease to man and cattle, affects 10 million square kilometres in the 37 states south of the Sahara desert. Some 37 million people and over 40 million head of cattle in Africa are at risk, writes Henry Wasswa.

In Uganda, cases of sleeping sickness have drastically reduced from 7,174 in 1987 to 1,655 cases by the end of 1991. According to sources from the Coordinating Office For the Control of Trypanosomiasis in Uganda (COCTU), the sharp decline in the number of trypanosomiasis cases in a period of five years has been possible due to the application of a series of methods to control the spread of tsetse flies. Among others, these methods include the use of trapping and Sterile Insect Technology (SIT).

In 1987, Uganda had the highest number of sleeping sickness cases in Africa and about 41 percent of the total area of the country had been inhabited by tsetse fly belt of about 47,000 square kilometres stretches from south of Lake Edward northwards to include the entire Ugandan-Sudan border.

According to Dr. Deogratius Ndyabahinduka, the national Coordinator for COCTU, the tsetse fly belt has a total of seven *genus morstans centralis machado*, *genus fuscipleuris austen*, *genus fusca conglensis newstead*, *genus nigro fusca hopkins*, and several others. [As published]

The second tsetse fly belt in Uganda consisting three species of grossina namely *gennses brevipalpis newstead*, *fuspec newstead* and *long pennis corti* covers an area approximately 51,500 square kilometres that stretches from the shores of Lake Victoria on the Uganda-Tanzania border through Lake Kyoga basin up to the Sudan border.

It is in these two tsetse fly belts that one finds the present sleeping sickness epidemics in their acute and chronic types in the northwestern parts of the country whereas nagana is a common disease in cattle population within the low, medium and high tsetse fly areas of the country.

It is estimated that approximately 70 percent of the livestock population in Uganda is exposed to nagana with about 40 percent of these in high risk areas of mid-western region.

The first recorded sleeping sickness epidemic in Uganda at the beginning of this century was a disaster, but measures were devised to control its spread.

The last infection occurred in 1971 on hitting south-eastern Uganda and spilling north leaving 169 people dead.

Following the control of this small epidemic, surveillance programmes were never followed up nor properly instituted due to the prevailing political and economic atmosphere. Since 1971 sleeping sickness cases started rising up to the highest recorded figure of 8,474 in 1980 with Busoga having over 98 percent of the total number of cases.

When the current government came to power, it set up a Permanent Inter-ministerial Commission (PIC) in 1986, the Technical Committee (TC) as its advisor and the COCTU as the secretariat with the aim of coordinating the management and funding for the control of the spread and research in trypanosomiasis in the country.

Dr. Ndyabahinduka said at his offices in Entebbe that the trapping method using the Lancien Trap, named after its French inventor, Janick Lancien has been the most successful method in the control of the spread of tsetse flies in Uganda.

Since 1988 when the European Economic Community (EEC) French trapping programme was initiated, a total

area of 2,600 square kilometres has been covered with over 10,000 pyramidal traps laid in Kamuli, Tororo, and Iganga districts. The traps are deployed in the field at an average spacing density of 8 traps for every square kilometre of the field.

According to the COCTU bosses, each trap is impregnated with 300 mg. of deltamethrin insecticide. He added that striking epidemiological results have been obtained since the inception of the trapping method with 90 percent reduction in the number of sleeping sickness cases in the treated areas.

Although ground and aerial spraying has been dropped in Uganda due to its environmental pollution, the method had brought some effective results in the control of the spread of tsetse flies.

Ground spraying in southwestern Uganda which started in 1986 reclaimed 160 square kilometres before the project was halted in 1988. Insecticidal barrier spraying in southeastern Uganda had also been effective with aerial spraying covering 322.2 square kilometres.

Aerial spraying also reclaimed 1,525 square kilometres in the counties of Butembe and Kagoma in Jinja District and Buzaaya and Bugabula in Kamuli District as well as Luuka and Kigulu in Iganga between 19 January and 14 August 1988.

"Aerial spraying may achieve the objectives of control quickly in terms of fly reduction and area covered but it is quite expensive and may also have problems associated with environmental pollution and the possibility of killing non-target organisms," said Dr. Ndyabahinduka.

To battle tsetse flies at their base, authorities have implemented the 700,000 dollars joint project between Food and Agricultural Organisation (FAO) and the International Atomic Energy Agency (IAEA) for Sterile Insect Technology (SIT).

According to the COCTU coordinator, the first phase of the SIT project which involves mapping the distribution and density of tsetse flies in the whole country has been completed.

The second phase of the project which has just started, he added, is to be carried out using the insecticides—treated livestock and that during phase 3 of the undertaking, SIT will be used to mop up the residual tsetse population.

Application of live baits to kill off tsetse flies has been used in Uganda particularly in Iganga and Tororo districts with positive results. In this method, the insecticide is applied on livestock particularly cattle and the animal acts as a live bait to the fly.

Dr. Ndyabahinduka says that this method is relatively new in the country but that it was catching on quite fast as it is community-based and environment friendly. He however added that the method is quite expensive and it would be difficult to apply it for long periods.

According to the COCTU boss, there has been introduction at a trial level of the use of spotton on cattle, pigs and dogs in Wakatanga county in Iganga District and Buteba and Mukujju sub-counties of Tororo District.

In addition to the trapping method used simultaneously with live baits, it is said that field reduction to the tune of 98 percent has been achieved in the treated areas.

Busoga which had the highest number of sleeping sickness cases of 6,674 in 1987 recorded a low figure of 275 by the end of 1991. Instead, Moyo District which had about 340 cases in 1987 now harbours over 95 percent of all sleeping sickness in the whole country.

The high incidence of sleeping sickness cases in Moyo is apparently due to immigration from southern Sudan of both Ugandan returnees and Sudanese refugees.

According to statistics from COCTU, the arrivals harbour 84 percent of all the 1,036 cases of sleeping sickness in the district of which borders with Sudan.

Sources from COCTU added that the disease prevalence among Ugandans in Moyo who had not moved to Sudan rose from 7.1 percent in 1990 to 16 percent in 1991 indicating that local transmission was increasing.

Although plans to integrate sleeping sickness patients into medical wards had to be delayed following the closing down of the treatment centre at Obongi and the increasing workload due to meningitis outbreaks in Moyo. COCTU in corroboration with MSC (Medicines Sans Frontier) of France is preparing to start tsetse trapping in the district.

The COCTU coordinator said that a lot of achievements in the control of trypanosomiasis have been realised following a resolution in 1988 to approach the problem in an integrated framework which among others included the consultation efforts of non-governmental organisations, government policy makers, donor agencies and the local communities.

"Our strategies through this integrated approach is to consolidate our achievements in Busoga (districts of Iganga, Kamuli, and Jinja) and enlarge our operations in the districts of Tororo, Mbale, Moyo, Arua, Gulu and Kitgum" said the COCTU boss.

#### **Anthrax Outbreak in Kasese District**

92WE0438A Kampala *THE NEW VISION* in English  
2 Apr 92 p 3

[Article by John B.B. Nzinjah: "Anthrax Hits Kasese"]

[Text] An outbreak of anthrax (a killer disease of cattle and sheep that can kill man on eating affected meat) has been reported in Nyakatonzi—a main cattle keeping zone of Munkunyu subcounty in Kasese district.

The Health Inspector for Bukonjo County, Mr. S. Muzora said on 23 March that the disease had claimed some lives of people and other people had been admitted at Kagando Hospital.

He told THE NEW VISION that the disease could spread if people did not refrain from eating meat of domestic animals which are dying daily as a result of drought.

The area now looks like a semi desert since the drought hit the region last September, with some little rains in December.

Muzora said also that cholera cases had been identified in the same area and he feared it could hit harder considering the poor sanitary conditions. The area has no convenient water supply. "A person has to walk three to four kilometres to find water," he said.

The RC 3 Mass Mobiliser for Munkunyu subcounty reported in the Kasese RC V office that the death rate of the cows in Nyakatonzi area had shot up since March, this year. At least 50 cows die every two days.

He feared that the meat of the dying animals could spread anthrax to the neighbouring subcounties. He said fresh and smoked cows' meat was being sold in open and black markets in Bukonjo County.

A source in the Department of Public Health at Kasese said a team of health educators was to be dispatched to Nyakatonzi area.

## ZAMBIA

### Malaria Leading Killer

92WE0397A Lusaka TIMES OF ZAMBIA in English  
5 Mar 92 p 2

[Excerpt] Malaria has been identified as the leading killer disease and last year two million cases were reported.

Minister of Health Dr. Boniface Kawimbe opening a seminar in Lusaka yesterday on resource mobilisation from donor agencies with a focus on malaria, leprosy and tuberculosis, said the number of the cases had increased while leprosy incidences had declined.

Dr. Kawimbe thanked the Iranian government which has donated 200 spray pumps for mosquito control.

He said the ministry was being restructured with a focus on the districts.

A manpower development policy to curb staff exodus was being worked out and may be ready by the end of the month. [Passage omitted]

### Kitwe Prison Hit by Cholera, Dysentery

92WE0397B Lusaka TIMES OF ZAMBIA in English  
15 Mar 92 p 9

[Text] Suspected cholera and dysentery has ravaged Kamfinsa prison in Kitwe killing two inmates and eight others are hospitalised.

Hundreds of inmates have severe diarrhea, and scores of residents with relatives at the prison swarmed the place yesterday taking an assortment of drugs for prevention.

A SUNDAY TIMES reporter who visited Kamfinsa, found a number of families who visited their relatives had a variety of antibiotics.

At Chimwemwe cholera isolation clinic, police and prison officers on duty said there were six inmates admitted, one died on Thursday last week.

Three others were admitted at Kitwe Central Hospital, where one died during the course of last week, but the specific day was not given.

The disease was so rife that two inmates who were taken to court last Friday to face charges messed up the docks after they had diarrhea.

### Over 5,500 Cholera Cases, 544 Deaths

Johannesburg Radio RSA in English 1100 GMT  
2 May 92

[Editorial Report] The World Health Organization says the number of deaths worldwide from cholera this year has more than doubled to over 1,500 in April. Zambia, which previously reported no cases, said it had more than 5,500 cases, and 544 deaths, the highest number of fatalities for any country.

### 'Mysterious' Disease Kills 35 People on Copperbelt

MB2905185492 London BBC World Service in English  
1830 GMT 29 May 92

[Report from Luanshya, Zambia, by Mike Hall on the "Focus on Africa" program—recorded]

[Text] At least 35 people in the Zambian town of Luanshya, on the country's northern Copperbelt, have died of a mysterious illness. At least 270 others are being treated for severe diarrhea and vomiting. The Ministry of Health is investigating the cause of the illness though, for the time being, health workers are treating it as cholera. From Luanshya, Mike Hall telexed this report:

Health workers have set up three makeshift centers in the township of (Mukonfwa), where 90 percent of those affected live. Even these have proved too small, and scores of patients are being treated outside, in the open air. There are intravenous drips hanging from branches of nearby shrubs. Anxious relatives waited outside the makeshift clinics, as health workers dressed in aprons;

plastic boots, and wearing (safety masks) hurried around treating new arrivals. Inside, 10 corpses lay uncollected.

Health workers have had to be drafted in from other towns. Dr. (Kwenda Kwema), the provincial Copperbelt medical officer, said he was treating the disease as cholera, but he said that he had never seen such a dramatic outbreak of the disease, and suspected the illness may have been caused by poisoning. (Mukonfwa) is one of the poorest districts in Luanshya and has a notoriously bad water supply, and residents say that they often go for weeks without water. They say they are shocked and baffled by the mysterious illness.

President Chiluba, who is visiting the Copperbelt, is due to visit (Mukonfwa) this evening, on his back to Lusaka. Schools, restaurants, and abattoirs have been closed until the cause of the illness is established. The incident has become the talk of the town, and rumors of foul play are spreading. Inevitably, there was wild speculation that the incident is connected to the visit to the town on Wednesday [27 May] of former President Kenneth Kaunda.

#### **Cholera Death Toll in Luanshya Reaches 62**

*MB0206115292 Johannesburg SAPA in English  
0934 GMT 2 Jun 92*

[Text] Lusaka June 2 SAPA—The death toll in a cholera epidemic in the Zambian mining town of Luanshya has reached 62 since the outbreak six days ago, provincial medical officer Dr. Davis Kwendakwema said on Tuesday.

Medical officers fear more deaths, as more than 280 people suffering from the disease have been admitted to four cholera centres in Mikomfwa township.

Zambia Consolidated Copper Mines (ZCCM) Chief Medical Officer Dr. Hector Sensenta said his firm had donated chlorine to the Luanshya Municipal Council to treat drinking water.

However, Luanshya town clerk Ing'utu Etambuyu Suba said the chlorine was barely enough to treat water for one week.

Zambian Health Minister Dr. Boniface Kawimbe and his deputy Dr. Katele Kalumba said the government was doing all it could to support efforts to contain the disease.

A cholera epidemic last year claimed 600 lives.

Meanwhile, the World Health Organisation (WHO) has given Zambia 500,000 US dollars towards a cholera control programme.

#### **More Than 2,000 Cattle Dead From Corridor Disease**

*92WE0482A Lusaka TIMES OF ZAMBIA in English  
19 Apr 92 p 1*

[Article: "Disease Kills 2,000 Cattle"]

[Text] More than 2,000 cattle died of corridor disease within two months this year prompting the Government to introduce free compulsory dipping with immediate effect to prevent further outbreak in the affected areas.

Director of the veterinary department, Dr. George Chizyuka says unless the Government works out more aggressive strategies like large-scale vaccination, more animals will perish.

Figures obtained from the veterinary department in Lusaka showed there were 1,264 confirmed corridor cases, 1,223 suspected cases, 1,073 confirmed deaths, 915 suspected deaths in January alone as against 199 cattle which were vaccinated.

The affected areas were Kabwe, Kapiri Mposhi, Chisamba, Mumbwa, Luanshya, Livingstone, Gwembe, Kalomo, Choma, Monze and Mazabuka. Monze recorded the highest death toll of 387 animals.

In February, there were 848 confirmed cases of corridor disease, 626 suspected cases, 658 confirmed deaths, 378 suspected deaths and only 164 animals were vaccinated. The outbreak affected Ndola, Siavonga and Sinazeze. Figures for March and April were yet to be received.

He said K100m recently released by Government was being used to buy drugs for treating corridor/East Coast fever (ECF) cases and to buy other items like bicycles and motorcycles for use by veterinary staff.

The department had plans to vaccinate cattle at risk against black quarter and anthrax before the animals moved to the wet areas. Vaccinations were available, transport and operational funds were required to enable the department to carry out vaccination campaigns.

He said requests had been made to appropriate authorities for funding. It was important as many cattle as possible were vaccinated.

"There is need to vaccinate cattle in the Kafue Flats against foot and mouth disease. Past experience has been that outbreaks of this disease originates from flats," he said.

More than 1,000,000 heads of cattle needed to be inoculated in the tsetse epidemic areas and Dr. Chizyuka said production losses of animals on the whole could be prevented if measures were taken now to stop indiscriminate burning of grass.

"It is recommended that one or two abattoirs be constructed in Southern Province. Only carcasses should be allowed to go out," he said.

**ZIMBABWE****Cattle Deaths From Rabies Caused by Jackals***92WE0398A Harare THE HERALD in English  
5 Mar 92 p 1*

[Text] Six cattle died of rabies at Manyange village in Mukarakate, Murehwa, last week amid growing cases of the disease throughout Zimbabwe owing to an increase in the jackal population.

Jackals are known to be effective reservoirs of rabies.

Confirming the report, the deputy director of the Department of Veterinary Services, Dr. Wellbourne Madzima, said yesterday that his department had acted swiftly by vaccinating all the cattle in the village and those in surrounding villages.

According to one Manyange villager, Cde Matambo Shungu, about two weeks ago, cattle that had been infected began to "behave as if they are mad." Five subsequently died last week.

**Midlands Swine Fever Under Control***92WE0485A Harare THE HERALD in English  
27 Apr 92 p 3*

[Article: "Midlands Swine Fever Outbreak Under Control"]

[Text] An outbreak of African swine fever—a disease which affects pigs only—was reported in the Midlands last month and has threatened the pork export market to South Africa.

As a result, the Director of Veterinary Services, Dr. Stuart Hargreaves, was scheduled to visit South Africa today to discuss the situation with the South African veterinary authorities in order to resume suspended pork exports.

Dr. Hargreaves said in an interview yesterday that African swine fever had broken out on a farm near

Sebakwe Dam in the Midlands on March 13 and had affected six domestic pigs, one of which died from the disease while the remaining five were destroyed by the veterinary department.

"African swine fever is a very, very serious disease. It has no vaccine, no cure and 100 percent mortality. Animals die rapidly and die acute deaths."

Dr. Hargreaves attributed the outbreak to the effects of the current drought as the warthog, which is the carrier of the disease, wandered into homesteads and mixed with domestic pigs, thus spreading the disease.

"The drought has forced the warthog, which carries the disease, to change its normal environment by moving close to human habitation in search of food and water and then mixing with the domestic pigs resulting in the spread of African swine fever," he said.

The viral disease was transmitted from warthogs to domestic pigs by ticks and the virus spread rapidly among the pigs. The carrier warthogs do not show any symptoms of the disease, Dr. Hargreaves said.

As a result of this minor outbreak of African swine fever, South Africa was reluctant to import pork from Zimbabwe until it got assurances from the veterinary department.

However, Botswana and Mauritius had accepted Zimbabwe's pork while negotiations with the Seychelles were going on, Dr. Hargreaves said.

"It (the outbreak) was exceedingly small and did not interfere with our commercial piggeries because it was an isolated case at a cattle ranch near Sebakwe Dam. The affected pigs were being reared for home consumption and there is no problem at all. All we need to do is just to reassure our customers that this little outbreak was rapidly controlled and does not affect our exports to them," he said.

All commercial piggeries in Zimbabwe were fenced as a control measure.

## SOUTH KOREA

### Second Cholera Case in 1992 in Seoul

SK0405131292 Seoul YONHAP in English 1211 GMT  
4 May 92

[Text] Seoul, May 4 (OANA-YONHAP)—A 71-year-old woman who recently returned from a package tour to Southeast Asia was found to have been infected with cholera, the Health and Social Affairs Ministry said Monday.

The Seoulite, identified only as Ko, is under an intensive care after a test showed signs of the deadly contagious disease, a Ministry spokesman said.

Ko was among the 183 passengers who arrived at Kimpo International Airport aboard KAL [Korean Air] flight 634 from Bangkok on April 29.

Twenty-seven people who went sightseeing in Southeast Asian nations along with Ko and 164 passengers who were aboard the KE [Korean Air] 638 have taken, or are advised to report for, medical examinations, according to the Ministry. Health officials said cholera germs have been detected in a restroom of the jetliner.

The Ministry advised travelers to be careful not to have contaminated food or drinks when they visit Southeast Asia, Africa and South America where widespread epidemics of cholera have been reported.

Ko was the second case of cholera reported so far this year in the country.

A total of 181,132 people have been stricken by cholera in 36 countries as of April 9 this year. Of them, 2,833 have died.

### Two More Koreans Infected With Cholera

SK0705081292 Seoul YONHAP in English 0654 GMT  
7 May 92

[Text] Seoul, May 7 (YONHAP)—Two South Koreans are in isolation after being infected with cholera while in Southeast Asia, the Health and Social Affairs Ministry said Thursday.

A 60-year-old woman, who returned home on Korean Air Flight 638 from Thailand on April 29, was carrying the cholera germs but had not developed symptoms, the Ministry said.

A 27-year-old woman, who returned home aboard the same flight the following day, was undergoing treatment after developing cholera symptoms, the Ministry said.

Four Koreans have contracted cholera in Southeast Asia so far this year.

### Tourist Returns From Thailand Infected With Cholera

SK3005061492 Seoul YONHAP in English 0544 GMT  
30 May 92

[Text] Seoul, May 30 (YONHAP)—A 30-year-old South Korean man who returned from Thailand May 22 has cholera, the Health-Social Affairs Ministry said Saturday.

The man, a resident of Shihung, Kyonggi Province, identified only as Yun, brought the number of cholera patients in Korea to five this year, the ministry said. All five contracted cholera in Thailand, it said.

Cholera had hit 246,000 people in 39 countries, including 23 in Japan, and killed 3,278 of them this year as of mid-May, the ministry said.

There have been no fatalities in Korea.

## LAOS

### Trash Blamed for Epidemics; Japan Aid

92WE0356B Vientiane VIENTIANE MAI in Lao  
25 Feb 92 pp 1, 4

[Text] On the morning of 23 February, the pilot Trash Eradication Program held a ceremony at Sisavat Temple in Vientiane city. Those in attendance included Mr. Udom Khattiyat, the mayor of Vientiane city, academics from the Japanese-Lao SAIKA Organization, and people from Ban Sisavat Klang, Ban Sisavat Tai, and Ban Dong Mieng. Mr. Shigemi Ando, the special Japanese ambassador, attended the ceremony, too.

On this occasion, Dr. Sitho Bannavong, the deputy mayor of Vientiane City, talked about the importance and necessity of eradicating trash in Vientiane city. This is still a major problem that has not yet been solved. This is a chronic problem that has had negative effects on the environment and on the health of the people living in the city. The most recent figures for Vientiane city show that about 139 tons of garbage are produced each day, but only 17.9 tons can be collected.

This trash is thought to be responsible for causing 922 cases of pulmonary disorders, 135 cases of encephalitis, and 232 cases of hemorrhagic fever. The Trash Eradication Program in Vientiane city is receiving support from the Japanese SAIKA Organization. Activities got under way in February. During the second phase, tests will be conducted in five villages in Chankhahouli District, Vientiane city, that is, Sisavat, Sisavat Klang, Sisavat Tai, Ban Dong Mieng, and Thung Sang Nang. The goal is to establish procedures for eradicating trash so that the people know what to do and adhere to the procedures.

**Diarrhoea, Measles Spread in Sekong Province***BK2005183192 Vientiane KPL in English 0905 GMT  
20 May 92*

[Text] Vientiane, May 20 (KPL)—Diarrhoea and measles breaking out in late April has now affected 440 people out of the entire 902 at seven villages of Dakchoung District, the southern Sekong Province. Among them, 215 have been affected by measles.

On other development, diarrhoea has spread severely and affected 30 people at Donsa village in Thateng area, of whom 10 are in critical condition and three have died.

At the same time, measles, diarrhoea, dysentery and cold also wildly erupted and claimed some lives. In this connection, the district public health service has taken every effort to rescue the patients.

**Outbreak of Animal Epidemics Expected Due to Weather***BK0905100892 Vientiane KPL in English 0923 GMT  
9 May 92*

[Text] Vientiane, 9 May (KPL)—The authority responsible for fighting against animal epidemic of the Ministry of Agriculture and Forestry recently warned against a possible widespread epidemic this year due to upsetting weather conditions.

According to the authority, epidemic has already occurred in limited scope. So far, cattle and buffaloes in Saithani District, Vientiane Prefecture, and in Kene Thao, Sayaboury Province are being affected by haemorrhagic septicemia.

In this connection, the ministry has issued an instruction to all provinces' veterinarian services to coordinate with the local administration in order to carry out timely vaccination against the various prevalent animal diseases.

Among vaccines to be administered are those against haemorrhagic septicemia, anthrax, black quarter, animal cholera.

Haemorrhagic septicemia tends to occur in the districts of Nan, Paktha, Houn (Oudomsai Province), the districts of Siangkho, Sam Neua (Houa Phan Province), Pak Ou District (Luang Prabang Province), districts of Hin Boun and Gnommalat (Khammouane Province), districts of Phin and Pangthong (Savannakhet Province), Saravane District (Champassak).

Anthrax tends to occur in Thakhek District (Khammouane), Khong District (Champassak). Black quarter is more common in Atsaphangthong District (Savannakhet Province) and in Paksong (Champassak).

**THAILAND****Incidence of Adult Chicken Pox***92WE0376D Bangkok THAI RAT in Thai 16 Mar 92  
pp 1, 22*

[Excerpt] [passage omitted] Chicken pox is a communicable disease that is most commonly found in children. On the afternoon of 15 March, a reporter reported that during the past two years, the incidence of chicken pox, particularly among older children and adults, has increased. Dr. Anthasit Wetchachiwa, the deputy minister of public health and the head of the Department of Medicine, Ramathibodi Hospital, said that chicken pox normally affects children three to eight years old. This is a viral infection that is transmitted by infected droplets from the nose. Symptoms include a high fever and clear vesicles on the body. Normally, this disease is not serious unless complications arise from contracting a bacterial infection. The patient could develop encephalitis or pneumonia.

Dr. Anthasit said that during the past two to three years, there have been some very interesting figures. It has been found that more and more older children and adults have been contracting this disease. In particular, the incidence of secondary diseases among these people is higher than normal. In 1991, at the Ramathibodi Hospital, 28 patients contracted secondary diseases. Normally, only 10-15 will develop complications. One reason for the increase in the incidence of this disease is that adults who contract this disease do not stay at home and rest. Instead, they go to work as usual, which allows the virus to spread. As for controlling this disease, Japan is now testing a vaccine for chicken pox on people who have little resistance to this disease. This should be very beneficial medically.

Dr. Sayomphon Sirinawin, an expert on communicable diseases, Ramathibodi Hospital, said that Japan has been testing this vaccine for more than 10 years. They use a live virus whose strength has been reduced. The problem is, this vaccine may cause a serious rash. Initially, this vaccine will be given to people with low resistance such as cancer patients. If they contract this virus, they could die. However, the Ramathibodi Hospital is conducting studies and trying to develop a vaccine for this disease, too. The plan is to inoculate people in general with this vaccine. The results should be known within the next two to three years.

**Cholera Outbreak Halts Cambodian Refugee Repatriation***BK2306120492 Hong Kong AFP in English 1129 GMT  
23 Jun 92*

[Excerpt] Bangkok June 23 (AFP)—An outbreak of cholera has halted the repatriation of tens of thousands of Cambodian refugees living in the largest camp on the Thai-Cambodian border, relief officials said Tuesday. Officials said there were five confirmed cases of the



disease in Site-2, which houses more than 200,000 refugees. They added that six other border camps in Thailand housing Cambodian refugees were unaffected. [Passage omitted]

### **Cholera Causes UN To Increase Repatriation From Smaller Refugee Camps**

*BK2406073692 Hong Kong AFP in English 0636 GMT 24 Jun 92*

[Text] Bangkok, June 24 (AFP)—U.N. officials will repatriate more Cambodian refugees than originally planned from six smaller camps in Thailand to make up for the halt in the flow of returnees from cholera-stricken Site-2, a UNHCR spokesman said Wednesday.

He said three Cambodians at the sprawling Site-2 border camp have been clinically confirmed to have cholera, a potentially fatal intestinal disease caused by living in unsanitary conditions.

A 61-year-old woman is in stable condition at a camp hospital with the disease. The other two confirmed cases, a relative of the woman and a friend, have not yet shown any symptoms of the disease.

Five other people at the settlement, administered by the office of the United Nations High Commissioner for Refugees (UNHCR), who were thought to have cholera tested negative, said the spokesman, who demanded anonymity.

"Despite the cholera problem and the earlier demonstrations in Site-2 that forced the postponement of all repatriation movements from that camp during the period June 1 to 17, UNHCR is compensating by scheduling more trips from the six other border camps," he said.

"As a result, it is expected that more than 20,000 Cambodians will repatriate from Thailand during this month," he said. "Since the 30th of March (when repatriation began), more than 34,000 Cambodians have returned to their country under the UNHCR voluntary repatriation program."

Site-2 was rocked by riots in early June by thousands of Cambodians who demanded more money to return home. Repatriation was halted from the camp, and resumed only last week with the return of 355 refugees to their war-torn homeland.

All of those Cambodians have since been given anti-cholera shots as a precaution, the spokesman said.

He did not speculate as to when repatriation from Site-2, which houses 60 percent of Thailand's Cambodian refugee population, might resume.

The UNHCR is charged with sending home all 375,000 Cambodian refugees in Thailand, and hopes to repatriate most of them in time for elections there early next year.

### **Hog Foot, Mouth Disease Threatens Exports**

*92WE0376A Bangkok DAILY NEWS in Thai 14 Mar 92 p 9*

[Text] Foot and mouth disease, or "kip" disease as it is called, has been a serious disease among hogs for more than 20 years now. The epidemic at the end of 1990 resulted in the death of a large number of hogs. As a result, the price of pork skyrocketed, causing problems for consumers. The Ministry of Commerce had to solve this problem and had to allow hogs to be imported. The International Trade Promotion Fund and the Export Promotion Department allotted 45 million baht to the Department of Livestock Development to purchase anti-foot and mouth disease vaccine in order to end the shortage of this vaccine. This helped the hog disease control program of the Department of Livestock Development and helped improve our pork so that it could be exported to other countries.

Recently, a ceremony was held to launch a program to eliminate foot and mouth disease in hogs in Zone 2, Chachoengsao Province, and in Zone 7, Nakhon Pathom Province. A total of 2.7 million hogs will be inoculated against type O, A and Asia 1 foot and mouth disease. The vaccinations will be given free of charge. This will be completed within one month.

Mr. Wiphit Chaisisongkham, the deputy director-general of the Department of Livestock Development, said that even though the Department of Livestock Development has formulated a primary plan and operations plans to eliminate this disease, there are still limitations with respect to budget funds, personnel, and the production of vaccine. That is, we cannot satisfy the demands of the farmers who raise hogs. There must be all-round development. In the past, only one type of vaccine was produced at a time. But now, the Department of Livestock Development has built a vaccine production plant that can produce all three types. In the near future, it should be able to produce enough to satisfy demand.

Mr. At Taolanon, the deputy minister of agriculture and cooperatives, said that Thailand has great potential with respect to hog production. We should be able to produce enough pork for both domestic consumption and exports. But we can't export pork at this time, because of the foot and mouth disease epidemic here. A long-term plan has been formulated. From now until the year 2001, we must take resolute action to control and eliminate this disease in order to completely eliminate this disease in Thailand by the year 2001. The Department of Livestock Development has allotted 5 billion baht for this.

## VIETNAM

**Over 2,000 Persons in Quang Hoa Contract Acute Malaria***BK2904115592 Hanoi Vietnam Television Network in Vietnamese 1200 GMT 29 Apr 92*

[Text] Quang Hoa is the most remote western district of Thanh Hoa province where travel by road is very difficult. The local population is made up chiefly of Thai, Muong, H'mong, and Dao ethnic minority groups who live scattered throughout various remote mountain areas.

It has been reported that the life of the local people is still fraught with difficulties and that the district has been hit by a chronic malaria epidemic.

In 1991, the provincial public health sector made great efforts in giving medical treatment to 12,800 malaria-stricken families, including 77,244 persons. It discovered 25,110 persons having a history of malaria, including 2,458 persons suffering from acute malaria. The public health sector did a good job in giving medical treatment to 33,479 malaria patients at various village medical stations and district hospitals.

To take the initiative in malaria control, in 1992 the Thanh Hoa provincial public health sector has sent a 60-strong health team to 24 villages to give medical treatment to those suffering from malaria fever or those who have tested positive for malarial parasites. In addition, the team has also sprayed DDT and encouraged the use of mosquito nets in conjunction with efforts to clean up the environment and carry out immunization.

In addition, the team has also consolidated and strengthened the grass-roots health network.

**VNA Notes Resurgence of Malaria***BK0105060592 Hanoi VNA in English 0551 GMT 1 May 92*

[Text] Hanoi VNA 1 May—After many years when it was thought to have been vanquished, malaria has again shown its ugly face in Vietnam and broke out into a real epidemic in 1991, posing a deadly threat to the lives of millions, especially in the mountain regions.

According to incomplete statistics, more than 1.1 million in Vietnam were struck by malaria in 1991, of whom 4,500 died. In the first two months of 1992, although no outbreak happened, the disease affected 86,000 people in 40 provinces and took 130 lives.

In the past Vietnam used to receive gratis from the Soviet Union and Holland each year from four to five million US dollars worth of mosquito killing agents and malaria drugs. Thanks to this, an effective campaign was launched in 1961 against malaria and in 1985 the germ-carrying ratio had dropped to 0.28-0.33 per every

one hundred blood tests. In south Vietnam the morbidity rate dropped from 11.78 percent in 1975 to 2.96 percent in 1980, the lowest annual rate ever seen there.

In recent years, however, added to the termination of aid from the Soviet Union is an underestimation on the part of the government of the danger of resurgence of malaria. In fact, in 1991 the government earmarked only 6 billion dong for the anti-malaria programme compared to 28 billion dong asked by the health ministry which had to disburse \$1 million from its own fund but even so could meet only 30 percent of the need. Meanwhile, the malaria-infested provinces which are used to rely solely on government allowances for medical expenditures, refused to put more money into the anti-malaria programme. The inevitable has happened. In 1989, 965,000 persons were affected by malaria of whom 3,439 died.

In 1990 the figures rose to nearly 1 million and 3,340 respectively. In 1991 more than 100 outbreaks of malaria were reported throughout the country the most serious of which was in Que Phong District, Nghe An Province, causing more than 300 deaths.

When they relapsed and returned fatality was almost certain because the germs had become resistant to the medicine.

The government has decided to earmark 26 billion dong to the anti-malaria programme, 10 billion of which have been allocated to the most infested provinces.

For its part, the health ministry has spent another 8 billion dong and made the fight against malaria the number two programme of the ministry this year, second only to the programme for the strengthening of the grassroot medical network. But according to the health ministry, even with 34 billion dong only 2.5 million among the 8 million persons living in the malaria-infested areas could be protected. The shortage of foreign currency reserve is a major problem since the efficacious medicine must be bought with hard currencies (one dose of mefloquine, for instance, costs \$6). At present the health ministry is campaigning for the plantation of "thanh hao hoa vang" (artemisia apiacea hance) from which Artemisin, a very efficacious anti-malaria drug, is prepared. Already the ministry has placed order with Binh Luc District in Ha Nam Ninh Province and Central Pharmaceutical Company No. 1 for 600 kilogrammes of artemisin. The ministry is also purchasing more anti-resistance medicaments and mosquito repellent to supply the heavily infested areas, working on the 500-kilovolt trans-Vietnam power line, border guards, etc. It is looking forward to more assistance and cooperation from international organisations, governments and non-governmental organisations in the implementation of the anti-malaria programme.

**Cholera Epidemic Hits Hue; 1000 Cases Reported**  
*BK2905113392 Hong Kong AFP in English 0944 GMT  
29 May 92*

[Text] Hanoi, May 29 (AFP)—A cholera epidemic has hit Vietnam's former imperial capital Hue, with just over 1,000 cases and at least three deaths in the past three weeks, medical sources there said.

The sources said hospitals in the central Vietnamese city were coping well with the epidemic despite a shortage of materials.

"They're well trained to deal with it because they have an epidemic every two or three years," in Hue, a local source said.

The source said that "three or four" deaths had occurred, a small number in proportion to the number of cases.

Hue is one of Vietnam's most popular tourist destinations, but nearly all foreign visitors receive cholera vaccinations in their home countries.

**YUGOSLAVIA****Serbs in Kupres Area 'Panicking'; Typhus Outbreak**

*LD1705161892 Zagreb Radio Croatia Network in Serbo-Croatian 1500 GMT 17 May 92*

[Excerpts] In the Tomislavgrad and Kupres area, the Serbian army and Chetniks are panicking. As we have

learned from people who have fled the Chetnik stronghold of Glamoc, the aggressors are short of drinking water, food, and medicines, while the Serbian army and Serbian territorials are continuing to fight each other. [Passage omitted]

Representatives of Tomislavgrad's Croatian Defense Council have said that on the first line of defense a number of Chetniks have been infected with typhus.

**CUBA**

**RESEARCH Center Tests Fish for Cholera Virus**

*FL1405194292 Havana Radio Reloj Network  
in Spanish 1402 GMT 14 May 92*

[Text] All fish destined for consumption by the Cuban populace is subjected to a sampling process to detect the presence of the cholera bacteria, and to date all the results of these analyses have been negative. This task has been conducted by the Fishing Research Center, which has been carrying out a program of prevention and

control since the outbreak of this disease in Peru. The Fishing Industry Ministry is also involved in this task.

Every fish batch received is subjected to biochemical, morphological, and serological identification tests. Test results become available in four days; for this purpose, highly reliable, accurate, and internationally recognized procedures are being used. The Hygiene Directorate of the Public Health Ministry is the entity authorized to issue the batch certificates after the tests for the cholera bacteria are completed, and it is only then that this product is marketed.

## EGYPT

**Malaria Mosquitoes Spotted in South**

92WE0208A Cairo AL-JUMHURIYAH in Arabic  
10 Jan 92 p 6

[Text] Female Anopheles mosquitoes, which cause malaria, have reached the "red zone" between Egypt and Sudan, and have spread in the city of ['Akkashah], which is 50 km from Wadi [Halfa].

Sudanese security organizations refused to allow the Egyptian eradication team, which is spraying for the mosquito, to do its job.

The al-Jambia administration in Aswan intensified its eradication operations in the High Dam Lake and regions adjacent to it and in the city of Abu Sunbul.

An anti-mosquito unit was established in Abu Simbal to spray the boats and transport vehicles coming from Sudan.

Previously, in 1942, this mosquito had infiltrated Egypt as far as Asyut, resulting in the deaths of 250,000 persons.

## INDIA

**Malaria Resurgence Brings Kala Azar**

92WE0410A New Delhi INDIAN EXPRESS in English  
5 Mar 92 p 8

[Article by Dr. Uma Vasudeva: "The Deadly Shadow of Kala Azar"]

[Excerpt] Kala Azar is a chronic visceral leishmaniasis occurring in India and characterised by irregular fever of long durations, enlargement of spleen and liver, anaemia, leucopenia, progressive emaciation and development of a strange earthy-greasy, dusky pigment of skin giving the disease its name. Untreated, the disease terminates fatally in two years. With treatment over 90 per cent of patients can be cured.

It is potentially endemic. In India the endemic potential is the heaviest in Bihar, Eastern Uttar Pradesh and East Indian States. This disease was practically eliminated by insecticides used in the widespread Malaria Eradication Campaign in West Bengal, Bihar and Assam in the sixties.

With the resurgence of malaria, the incidence of Kala Azar has also increased recently and has been reported in epidemic form in Bihar affecting more than 2.5 lakh people. More than 4.5 lakh people are directly exposed to the danger with a threat to strike the neighbouring States of Orissa, West Bengal and Eastern U.P.

The number of people affected and the number of deaths rose from 18,689 and 229 respectively in 1977 to 30,658

and 466 in 1989, 44,274 and 590 in 1990 and 50,745 and 735 in 1991. [Passage omitted]

**Statistics on Brain Fever Deaths in Madhya Pradesh**

92WE0409A New Delhi PATRIOT in English 6 Mar 92  
p 2

[Article: "267 Die of Brain Fever in MP"]

[Text] Bhopal March 5 (UNI)—Altogether 267 persons died of brain fever and another 1,582 were affected by the disease in 24 districts of Madhya Pradesh last year, Chief Minister Sunderlal Patwa informed the Vidhan Sabha.

In a written reply he told Premshankar Verma yesterday, that tribal district of Bastar witnessed as many as 53 deaths. He said the State Government had set up counters to supply medicines in the affected areas and made arrangements for shifting of patients to district hospitals and vaccination of high-risk persons.

**Epidemic Break Out in Tamil Refugees' Camps**

92WE0439A Madras INDIAN EXPRESS in English  
19 Mar 92 p 4

[Excerpts] ERODE—Five Sri Lankan Tamils at the Bhavanisagar refugees' camp have died due to the outbreak of diarrhoea and other contractible diseases. More than 100 persons are reportedly affected by small pox and chicken pox.

About 4,000 Sri Lankan Tamil refugees are at the Bhavanisagar camp for the past two years. Only eight latrines have been provided for them, out of which six are not in good condition. The handpump in the camp is also dead. Water from the Bhavanisagar dam is being supplied to the camp directly through pipelines. The water which is supplied two hours a day is neither purified nor chlorinated.

Due to the poor medical facility and insufficient latrines, women are suffering most. [passage omitted]

Mr. N. Sellaiah, president of the Sri Lankan Tamil Refugees' Welfare Association, in an interview to ENS said that Malini, daughter of Juvanis, and Chris Stella, daughter of Edward and three others died in the past two months due to diarrhoea and other diseases.

Now about 200 persons are affected by chicken pox and measles. The temporary tent constructed with tarpaulin sheets could not provide adequate protection from the summer heat. The space provided for each tent was not adequate for the families, he said. [passage omitted]

Medical persons used to make frequent visits in early days, but they had not made a single visit in the past two months. A health assistant who came to the camp regularly was concentrating only on family planning operations, he alleged.

**Enteric Disease 'Rages' in Tripura**

92WE0464 Bombay THE TIMES OF INDIA  
in English 24 Apr 92 p 9

[Text] Agartala, April 23—About 150 tribals, including women and children, have died and over 200 are struggling for their lives, affected by an enteric disease raging in the hilly interiors of north and south Tripura.

Though officials put the toll at 150, according to unofficial estimates over 200 tribals have died in the Natinmanu, Malidhar, Garjanpasha, Wakirampara and Thacheria villages under Chhawmanu block and the Ratannagar, Dalipati, Bhagirath and Wakirai villages under Gandacherra and Amarpur sub-division of south district.

Official sources said that the hilly interiors of the Kanchanpur block in north district and the Dumburnagar block in south district have also been badly affected.

The disease caused by a prolonged food crisis and contaminated drinking water broke out last week and soon assumed the form of an epidemic. Adequate medical assistance was not available.

The senior TUJS [Tripura Upajati Juba Samiti] leader and agriculture minister, Mr. Nagendra Jamatya, who trekked through the three affected blocks between April 17 and 19 to assess the situation, said that the prolonged food crisis caused by the failure of the Jhoom crop last year and the consequent eating of food not fit for consumption had led to the epidemic.

Mr. Jamatya admitted that hundreds of tribals have left their villages for the neighbouring Mizoram and the Chittagong hill tracts of Bangladesh.

He expressed the fear that unless adequate measures were taken, the jhoom would fail this year too since the ATTF [expansion not given] militants will not allow the tribals to harvest their crops, as it happened last year.

The state government has launched a relief operation. Two medical teams have been posted in the worst-affected Chhawmanu block while a well-equipped medical team is on mobile duty in the interior areas of north district and south district. The state government has also ordered opening of several community feeding centres for tribals who have taken shelter in the market areas.

The chief minister, Mr. Samir Ranjan Barman, has held discussions with medical experts and officials of the health department to coordinate the relief operations.

**At Least 89 Dead, Over 2,300 Affected by Cholera in Bihar**

BK0206040692 Delhi All India Radio Network  
in English 0245 GMT 2 Jun 92

[Text] In Bihar, at least 89 people have died of cholera and gastroenteritis and over 2,300 affected with the disease in Darbhanga and Madhubani districts during the past one week. Reports say 55 people have lost their lives in Madhubani District alone and nearly 1,800 have taken ill. The state government has pressed into service two mobile teams and 40 doctors to treat the ailing people.

**ISRAEL**

**Malaria Found Among Ethiopian Immigrants**

TA0805114992 Tel Aviv HADASHOT in Hebrew  
8 May 92 p 10

[Report by Hila Tov]

[Excerpt] Malaria is active in Israel. Kaplan Hospital has identified over 100 carriers of malaria parasites—all new immigrants from Ethiopia—since Ethiopians began moving to the region near the hospital. Each day, two or three people have arrived at the hospital with symptoms of the disease. Researchers at the hospital believe that the situation is similar in other parts of Israel and that, in fact, there are hundreds of patients. According to them, unless thorough treatment is applied immediately, a malaria epidemic could break out in the fall.

Dr. Lydia Harekabi, deputy director of the Kaplan Hospital internal medicine department, has said that it is hard to tell today whether an epidemic will indeed break out. She said that it is impossible to establish today what will happen in two to three months and that the matter will be dealt with should the need arise.

Out of 615 people examined at Kaplan Hospital in January and February, 17 children and 42 adults were found to suffer from malaria. [passage omitted]

**Hoof-and-Mouth Disease Breaks Out in Northern Israel**

TA2305074492 Jerusalem Qol Yisra'el in Hebrew  
0700 GMT 23 May 92

[Text] Hoof-and-mouth disease broke out among cattle herds in northern Israel following a break of a year and a half. A quarantine was imposed in the north, and it is forbidden to transfer animals, including hunted ones, southward. Our correspondent Shulamit Schmerling has learned that this disease first broke out in the Kibbutz Senir's herd. It is believed that the disease spread to the north of Israel from Lebanon.

**New Uzbek Center to Treat Zaaminellosis**

92WE0389A Moscow RADIKAL in Russian No 7,  
Feb 92 p 11

[Article by Aleksandr Polikarpov: "Uzbek AIDS: Diagnosis Confirmed"]

[Text] The Center for Mycology and Protozoan Diseases was organized in the Uzbek capital by order of the republic's Council of Ministers. It is headed by merited scientist of Uzbekistan, Professor of Medicine N. Dekhkan-Khodzhayeva.

This was the culmination of the Tashkent physician's almost 20-year fight to establish a scientific and therapeutic institution that could oppose the spread of the fungal disease she discovered in 1972—zaaminellosis, or "Uzbek AIDS" as the professor refers to it.

The center's organization was preceded by work of a commission of the USSR Academy of Medical Sciences formed to study this previously unknown ailment. The commission confirmed the conclusions reached earlier by N. Dekhkan-Khodzhayeva. In doing so, the commission refuted accusations of improper experiments and unproven discoveries fabricated against her over the last two decades by central and local public health agencies with, as time revealed, a single goal: to discredit the scientist so as not to allow information on the terrible disease to be released beyond a small circle of specialists and soviet and party officials.

The advent of *Zaaminella* in Uzbekistan, which was discovered for the first time in soil in Dzhizak Oblast, is associated with disturbance of the ecological balance in this region: by the practice of intensive irrigated farming and active chemicalization of agriculture.

The microscopic spores of the fungus are unusually aggressive. They are found in almost all organs, including brain cells, in just a few hours after entering the living organism. Acting upon blood leukocytes, they disable the individual's immune system in the manner of the AIDS virus.

Observations carried out during all of these years by N. Dekhkan-Khodzhayeva and her associates show that the incidence of *Zaaminella* infection has increased from several percent to tens of percent. This, the professor believes, is one of the causes of the increase in child mortality in Central Asia. In those same years—years of inaction by official public health—the disease spread practically throughout the entire country. The absence of the appropriate statistics makes it impossible to discuss its dynamics and its extent. But N. Dekhkan-Khodzhayeva's patients include residents of other Central Asian republics and of the Transcaucasus. In spring of last year, cases of zaaminellosis were established in Russia in Penza Oblast.

The illness proceeds under the cover of 42 other different diseases depending on which organ is afflicted by the fungus to the greatest degree. Usually zaaminellosis

"betrays itself" under the cover of diseases of the ear and nose, pneumonia and bronchitis.

The new scientific and therapeutic center has obtained the status of a commercial organization. However, its director states that a fee will not be charged for some types of treatment, and not all will have to pay for treatment. Large, poor Uzbek families and some other categories of patients are released from payment. There will be a charge for treatment primarily of those diseases that are not a direct danger to life. For example alopecia (loss of hair), which according to N. Dekhkan-Khodzhayeva's data is of fungal nature in 80 out of 100 cases.

I have already written about this twice in DELOVOY MIR. The situation that has evolved around the disease in the last few months has compelled me to return to the topic.

As often happens, the articles in DELOVOY MIR (I don't want to overstate their significance, but they were the first substantial newspaper articles on "Uzbek AIDS") acted as a kind of trigger that activated other mass media and, what is especially important, the Uzbek press. Patients and specialists became aware of the doctor from Tashkent. As a consequence the number wishing to be examined by Dekhkan-Khodzhayeva significantly exceeded the clinic's possibilities.

However, what was troubling was not the waiting line—we have long become tolerant of all kinds of lines. What was a surprise was the wide geographical extent of zaaminellosis—far wider than the professor supposed. It stands to reason that not all who visited her carried the malevolent fungus. On the contrary it was not detected in their majority. But at the same time a person from the Baltics, a resident of Magadan Oblast, a young man from the Crimea and an 18-year-old girl from Moscow were detained for hospital treatment. A high-placed worker, the director of a Russian ministry, was invited to the examination.

In other words the larger the number of people that are informed about the disease, the more serious the pattern of its "domicile" appears. And this is all in the face of the former total indifference of public health agencies.

Although Dekhkan-Khodzhayeva is treating "Uzbek AIDS" with existing antifungal drugs, she herself admits that there is no guarantee of complete recovery. Because no one drug is powerful enough to sterilize the millions of erythrocytes, leukocytes and lymphocytes besieged by the micro-monster in its insoluble chitin capsule. Only one thing would help now—a vaccine.

But neither Dekhkan-Khodzhayeva's center nor sovereign Uzbekistan itself would hardly be able to develop the needed agent within the next decade. There is no science. There is no money. There is science at a good level in Russia. There is money in the Commonwealth. But alas! We suffer illness together, but we attempt to recover apart. Dekhkan-Khodzhayeva is apprehensive



that zaaminellosis has gone on world tour. Uzbek Germans emigrating into the FRG may have imported it into Europe. She intends to communicate this to the German Ministry of Health. She insists that the government of Uzbekistan must ask the World Health Organization to provide international assistance to the republic—the same kind that is being given to other states in the fight against AIDS.

Officials are in agreement with her, and promises are being made to her, but the old habit of not washing dirty linen in public is still firmly controlling the actions of the highest echelons of the Uzbek leadership. They are in no hurry there to sound the alarm. They are probably waiting for the bell to toll.

Photograph [not reproduced]: A *Zaaminella* colony in a lymphocyte (20,000-X magnification).

#### Hemorrhagic Fever in Yelabuzhskiy Rayon

92WE0411C Moscow TRUD in Russian 5 Mar 92 p 8

[Interview with E. Gorlovskaya, director of the republic epidemiological station's department of especially dangerous infections, by Ye. Grigoryev; place and date not given: "Let's Use the Steam Room"]

[Text] It seems that liberalization of prices is forcing the country into a situation of diseases and epidemics of the kind we had not witnessed since the difficult postwar years—typhus, brucellosis, tuberculosis, anthrax.... Higher levels of infestation by lice and uncleanness are "guaranteed" to citizens by the prices for the services of baths, hairdressing salons and dry cleaners, which have jumped by a factor of 10. Residents of the old city, who are deprived of communal conveniences, are suffering especially. "How real is the threat of an epidemiological catastrophe?" This question is answered by E. Gorlovskaya, director of the department of especially dangerous infections of the republic's epidemiological station:

**Gorlovskaya:** Unfortunately I have nothing with which to reassure you: The danger of infection of the population has risen dramatically. Recently we quenched an outbreak of a serious infectious disease—hemorrhagic fever coupled with the renal syndrome [HFRS]—in a rural school of Yelabuzhskiy Rayon. Twenty-six students and teachers fell ill. The school was maintained in a repulsive sanitary condition. Such outbreaks may occur in any point in the republic—at farms, oil fields and gardening cooperatives. Because chemicals are so expensive, and because of the shortage of the most necessary cleaning materials and rodent poisons, prevention is clearly inadequate.

**Grigoryev:** What form of infection do you encounter most frequently among people in the home?

**Gorlovskaya:** The level of infestation of the population by lice (pediculosis), especially among children, is increasing with frightening swiftness. Children from the

zone of the Chernobyl disaster vacationing here in Tatarstan are responsible for a peak in this illness curve. For the moment we are dealing basically with pediculosis capitis, but there is no guarantee against pediculosis vestimenti either. People are now bathing less frequently—one trip to the baths for a family of four costs 30-40 rubles! There is no soap for sale.

**Grigoryev:** What measures might in your opinion forestall the danger?

**Gorlovskaya:** The government must immediately lower the prices of bath and hairdressing services, and make them accessible even to the poorest. Washing detergents and soap are unavailable in the stores because the chemical combines are trading them in barter deals. The authorities must intervene in this situation decisively.

#### Open Air Food Stalls Worry Health Officials

92WE0415A Helsinki HUFVUDSTADSBLADET  
in Swedish 27 Mar 92 p 12

[Finnish News Agency article: "Open Air Market Causes Concern"]

[Text] The sudden easing of price controls and Boris Yeltsin's decision to allow unrestricted street vending have caused the supply of merchandise to increase and a large number of entrepreneurs to appear along every major street in Moscow, as well as in other cities. But the "free trade" which every day involves tens of thousands of people in the Russian capital alone, has resulted in loss of sanitary control in the handling of foodstuffs, and an increase in reported cases of trichinosis, botulism and other intestinal diseases.

The first results of the drastic price increases (an average of 600 percent), which became effective 2 January, could be seen on the store shelves, which were suddenly filled with ham, smoked sausage, eggs, and canned goods, products which had not been seen in the stores for years.

But the increased supply was an illusion. An average Moscow family cannot afford to pay the new prices, and many products will remain on the shelves until they spoil or become moldy.

"This is not what we anticipated. The stores cannot sell the merchandise because the prices are too high," wrote Nikolai Shestopalov, Moscow's chief veterinarian, in a critical article published last week in the newspaper KOMSOMOLSKAYA PRAVDA.

#### Was Fired

Last Tuesday evening, Moscow's Deputy Mayor, Yuri Luzhkov, announced that Shestopalov had been fired because he refused to allow frozen school meals produced by a brand new food production plant, to pass inspection. The plant had recently been built at a cost of \$120 million.

Shestopalov told the newspaper that every week inspectors from his office came across between 1 and 2 tonnes of foodstuffs, mainly fish, sausage, and sweets, which had passed the final consumption day by a broad margin.

Irina Piskaryeva, head of Moscow's Commission for Sanitation and Epidemic Diseases, last Tuesday told the news agency TASS that, since the beginning of January, 40 cases of botulism, two of which were very serious, had been recorded. In addition, 36 people were affected with trichinae after eating pork. Trichinosis is an incurable disease which causes fever, muscle pains, diarrhea, and nausea.

According to the press, almost half of the reported cases of trichinosis can be traced to a contaminated shipment of lard which was sold at the Tsheryomushinky market, which is popular with foreigners. In Russia, lard is commonly used as a sandwich spread.

#### Business Is Booming

At the end of January, in order to further boost the supply of products and to increase competition between retailers, Yeltsin decided to legalize street vending, which had already taken root in Russian cities.

Every day, on every corner along the large Russian prospects, and outside the large agricultural markets, one can see a colorful private trade involving everything from rolls of thread, used tools, and whole furnishings, to slabs of meat, sausage, eggs, sour cream, milk, and home canned vegetables.

The supply is almost unlimited. But the prices are exorbitant. And the goods, as noted, are not inspected.

The Tuesday issue of the English language MOSCOW TIMES warns its readers not to buy food from street vendors. According to Irina Piskaryeva, 70 percent of the four metric tons of foodstuffs which were seized from street vendors (a vendor's stall is often only a vegetable crate turned upside down) last week alone, were found to contain too high levels of staphylococci and colon bacilli.

She told TASS that incidents of intestinal illnesses had increased in Moscow since the beginning of the year by between 100 and 140 percent, and that she feared the situation would get out of control.

#### 12 Million Mice Downtown

The number of rats and mice have increased significantly as a result of the street vendors and the inevitable sanitary problems following in their wake. Local health officials estimate the number of rats in downtown Moscow at 0.5 to 1 million, and the number of mice at up to twelve million.

In a recent competition to select a method for authorities to combat the rats, the jury refused to award a first prize but gave second prize to an ingenious rat trap, which also kills the feared rodents.

The city of Moscow, which had requested that the Russian Government issue new restrictions regarding private sale of perishable foodstuffs, decided last Tuesday, effective immediately, to abolish the price controls on a number of products which were exempted from the price reforms of 2 January.

This meant that price restrictions were eliminated from such goods as milk, various types of bread, milk solids, sugar, salt, and matches, but as store keepers were not notified, the old prices remained in force for a few more days.

Everybody expected significant price increases across the board, starting 15 April, when the Russian Government, in a further step towards a full market economy, intended to drastically increase the prices of oil, coal, and electric power.

But last Tuesday, Boris Yeltsin announced that energy price hikes have been postponed until May or June.

Many economists have warned that increasing the price of oil will lead to, among other things, food prices doubling or tripling. Finance and Deputy Prime Minister Yegor Gaidar, who considers the increase of oil prices a key factor in saving the Russian federation from a deepening economic crisis, has, however, predicted a general price increase of approximately 40 percent.

According to newly appointed Economy Minister Andrei Netyayev, the Russian standard of living has decreased by 30 to 40 percent since the beginning of the year.

#### Brucellosis Outbreak in Eastern Kazakhstan

92WE0423A Moscow IZVESTIYA in Russian  
22 Apr 92 Morn p 8

[Article by Sergey Yeremeyev: "Brucellosis Outbreak in Zaysan"]

[Text] Twenty-five persons were infected with brucellosis in Zaysanskiy Rayon in the last 3 years due to the low level of preventive work in public health and the scandalous negligence of farm directors.

The board of the rayon administration limited itself to strict reprimands to the chief physician of the rayon veterinary station and sovkhos directors; dismissal of one director from his post was proposed.

But in the meantime the once calm and remote Zaysan has become a busy place. The city has been under restoration since the 1990 earthquake by hundreds of new arrivals, and not just from Kazakhstan alone. The spread of this highly dangerous disease has even caused concern among U.S. citizens—participants of a project to build the first Kazakh-American school, to be opened in Zaysan.

**Several Cases of Cholera Registered in Moscow**

*OW0705223292 Moscow INTERFAX in English  
1906 GMT 7 May 92*

[Following item transmitted via KYODO]

[Text] Several cases of cholera are registered in the Western district of Moscow.

The district commission on emergency situation comprising specialists-epidemiologists reported to "IF" [INTERFAX] that the preliminary data indicate that it was a single imported case of the disease. According to one member of the commission it is not an epidemic.

Four infected people, one pupil from school No. 1235 returned from India to Moscow May 1 and the number of their contacts was quite limited.

At present all the infected are taken to hospitals. The school where the child studies was disinfected, the pupils and school staff were checked by their analyses. According to the commission, there is no danger for the other people because the disease was timely localized.

The commission ordered not to organize any mass gatherings in the school.

## FRANCE

**Swine Fever Detected in Boar Population**

92WE0421A Paris *LIBERATION* in French 20 Apr 92  
p 15

[Article by Michel Sousse: "Vosges Boars Stricken By Swine Fever"—first paragraph is *LIBERATION* introduction]

[Excerpts] Over the past five months, swine fever has killed hundreds of wild boars in the East. To prevent a spread of the epidemic to the pig farms, hunters are trying to exterminate the stricken boars.

Strasbourg—A bloody Easter awaits the wild boars of the northern Vosges. After the discovery of a focus of swine fever there, around the end of 1991, it has now become necessary to destroy all the boars in that sector, as the only means of isolating and checking the spread of the enzootic disease. Hunters are already denouncing the importing of boar meat from the East European countries as the cause of this epidemic. But this is only a hypothesis among others.

The first cases were discovered toward the end of December, in a region straddling the departments of Bas-Rhin and Moselle, along the German border. Hunters there found suspicious looking carcasses of boars. As the number of finds began to increase, it was decided to analyze a carcass. Around the beginning of February, the veterinary laboratories reported their findings: It was swine fever, a virus that attacks only swine, pigs and boars. While not dangerous to humans, the virus kills its pig within a maximum of 15 days.

**General Mobilization**

The police headquarters concerned immediately signed mobilization orders and installed a crisis management command post at the Nonnenhard Foresters Lodge, near Langensoultzbach. Throughout the territories of 90 communes, the boar hunt intensified. In the heart of the infected area, total destruction of the boars is being enforced. Around the outskirts, hunters are being asked to increase their shooting so as to isolate the sick population. To this end, all hunting restrictions have been lifted, except as to the use of nighttime searchlights. The goal is to kill the maximum number of boars regardless of age or gender.

In the center of the region, since increasing the number of battues and shots risks frightening the animals, causing them to flee while carrying the virus, their elimination is being accomplished by setting traps. Food pens are placed every 200 hectares to attract the animals, which then are killed on the spot. "Thanks to this approach, we can say that the situation is under control; but it is not yet resolved," says Francois Trichler, a forest ranger specifically in charge of recovering the carcasses that continue to be discovered daily by hunters and hikers.

As of mid-April, more than 210 animals had been found in the Bas-Rhin and Moselle regions. During the same period, teams from the National Office of Forests [ONF] and the National Hunting Office are trying to isolate the infected region by reinforcing all obstacles and barriers so as to limit the animals' movements. [passage omitted].

This dangerous situation does not only threaten hunting. Pig-farming is also directly affected. That is why all hogs are being systematically inspected by veterinary personnel when they are brought in for slaughter. "If a hog herd becomes infected, there is only one solution: Destroy the entire herd, vacate the premises, and disinfect them," says Roland Gilger of the Veterinary Service.

**Meat From East European Countries in Question**

This has not prevented the beginning of a polemic at the Hunters Federation as to the origin of the epidemic. The hunters say there is no doubt that the disease comes from boar meat imported from the East European countries. According to them, the hyper-resistant virus, which can survive in salted and smoked meats even for years, can only have been transmitted to the Alsatian boars by means of dishwater from restaurants or from establishments selling imported meat, the scraps from which are used to feed wild animals in the forest.

It is a mere hypothesis since the tests carried out by the Central Laboratory for Veterinary Research have not yet determined the typology of the virus, which is the only way to prove its relationship to a viral family already identified abroad. The hunters' hypothesis, on the other hand, reflects the slump in the boar market, in which prices have been driven down 50 percent in the last two years by the low-priced imports from East Europe. [passage omitted].

**Hunting Licenses**

Since confirmation of the epidemic, hunters have turned to the municipalities to renegotiate for lower hunting license fees. The ONF for its part has conceded a postponement of the 1 June payment on license fees, pending further development in the swine fever situation. "The hypothesis of infection by imported meat suits the hunters," retorts a veterinarian who says that the epizootic came across the border from Germany, where swine fever is endemic, unlike France where it disappeared a few years ago. "In 1989, a focus of infection was identified in the Taunus, a small mountainous massif 100 kilometers from the French border. Last year, Germany also reported four cases in semi-free-ranging pig farms, indicating in each case contamination by boars," says Dr. Gilger, who therefore does not exclude the arrival of the virus across the green border. "Rabies," he pointed out, "has previously entered France via the same sector of the border." The only predator of the boar, incidentally, like that of the fox, is man.

Several years of disinterest in hunting the boar, coupled with mild winters, have brought a boar population explosion. [passage omitted].

The sole priority now is to wipe out this infection at its source and at whatever cost, by slaughtering a maximum number of animals in order to isolate the carriers of the virus. The idea of a vaccine, under consideration at one time, has finally been scrapped, for it threatens to cloud the issue. After slaughtering and testing, it is impossible to distinguish between an animal carrying the virus owing to vaccination, and a healthy carrier that may already have spread the disease. And under no circumstances can the epidemic be allowed to spread on its own, as occurred in the Moselle region between 1963 and 1966, the last serious epidemic recorded in the region. Today the threat to the pig-farming sector is too serious to permit such an attitude to prevail. And all the more in that, in 30 years, Europe has experienced growth, and pork meat is distributed very quickly from one country to another, thus threatening to spread the disease to other countries.

## SWEDEN

### Authorities Prepare for Swine Flu Entry

92WE0419C Stockholm SVENSKA DAGBLADET  
in Swedish 7 Apr 92 p 6

[Text] The feared swine flu PRRS is coming ever closer to Sweden. Swine on 15 farms in southern Jylland in Denmark have recently become sick. Should the disease reach Sjaelland, there is a risk that it will spread also to Sweden—the virus can be carried on the wind for several kilometers.

The disease was detected in Europe just two years ago. Great Britain, the Netherlands, and Germany were most affected in the beginning, while currently it is France which has the biggest problem. PRRS has influenza-like

symptoms and often leads to pregnant sows losing their fetuses or producing stillborn offspring. Among sucking pigs, the death rate is 60 percent. Adult animals fare significantly better.

## UNITED KINGDOM

### Restrictions Imposed to Control Bee Parasite

92WE0455A London THE DAILY TELEGRAPH  
in English 29 Apr 92 p 9

[Article by David Brown]

[Text] Infected area restrictions were imposed on 16 counties in southern England yesterday in the fight to control the blood-sucking varroa honey bee parasite.

Varroasis has spread to Europe from Russia and the Far East and Government scientists believe it is here to stay. Testing for the mites has widened to East Anglia, the Vale of Evesham and North Yorkshire.

"I think this pest has been with us for several years and is now probably endemic," said Mr. Medwin Bew, head of the Central Science Laboratory's National Bee Unit at Luddington, near Stratford-upon-Avon.

The parasite, which attacks adult bees and grubs, was discovered three weeks ago in Devon at a demonstration apiary run by the Torbay Beekeepers' Association.

It is threatening honey production and the efficient pollination of fruit crops. Local standstill orders were replaced yesterday with blanket coverage under the Bee Diseases Control Order.

Though pesticides for the mite are available in the EC, Britain has none approved for use—a matter being given "the highest priority" by the Government's Veterinary Medicines Directorate.

**Cholera Incidence**

92WE0411B Moscow TRUD in Russian 30 Jan 92 p 8

[Article by N. Shevtsov: "Cholera, Bad As It May Be!"]

[Excerpt] [Passage omitted] Last year, according to data of the World Health Organization cited in the Belgian newspaper LA LIBR BELZHIK [transliteration], the largest number of cases of cholera were registered since

WHO has been collecting such statistics—over 500,000, including over 160,000 deaths.

Over half of all patients were in Latin America, and primarily in Peru—around 200,000, and in Ecuador—39,000. Over 100,000 persons fell ill in Africa, and over 12,000 in Asia. In Europe there were 311 persons afflicted by cholera (226 lived in Rumania, 9 of whom have died). In second place following Rumania is the Ukraine, with 75 cases. Seven were recorded in France, two in Russia and one in Spain.

NTIS  
ATTN PROCESS 103  
5285 PDRT ROYAL RD  
SPRINGFIELD VA

2

22161

This is a U.S. Government publication. Its contents in no way represent the policies, views, or attitudes of the U.S. Government. Users of this publication may cite FBIS or JPRS provided they do so in a manner clearly identifying them as the secondary source.

Foreign Broadcast Information Service (FBIS) and Joint Publications Research Service (JPRS) publications contain political, military, economic, environmental, and sociological news, commentary, and other information, as well as scientific and technical data and reports. All information has been obtained from foreign radio and television broadcasts, news agency transmissions, newspapers, books, and periodicals. Items generally are processed from the first or best available sources. It should not be inferred that they have been disseminated only in the medium, in the language, or to the area indicated. Items from foreign language sources are translated; those from English-language sources are transcribed. Except for excluding certain diacritics, FBIS renders personal names and place-names in accordance with the romanization systems approved for U.S. Government publications by the U.S. Board of Geographic Names.

Headlines, editorial reports, and material enclosed in brackets [ ] are supplied by FBIS/JPRS. Processing indicators such as [Text] or [Excerpts] in the first line of each item indicate how the information was processed from the original. Unfamiliar names rendered phonetically are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear from the original source but have been supplied as appropriate to the context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by the source. Passages in boldface or italics are as published.

#### SUBSCRIPTION/PROCUREMENT INFORMATION

The FBIS DAILY REPORT contains current news and information and is published Monday through Friday in eight volumes: China, East Europe, Central Eurasia, East Asia, Near East & South Asia, Sub-Saharan Africa, Latin America, and West Europe. Supplements to the DAILY REPORTs may also be available periodically and will be distributed to regular DAILY REPORT subscribers. JPRS publications, which include approximately 50 regional, worldwide, and topical reports, generally contain less time-sensitive information and are published periodically.

Current DAILY REPORTs and JPRS publications are listed in *Government Reports Announcements* issued semimonthly by the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161 and the *Monthly Catalog of U.S. Government Publications* issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

The public may subscribe to either hardcover or microfiche versions of the DAILY REPORTs and JPRS publications through NTIS at the above address or by calling (703) 487-4630. Subscription rates will be

provided by NTIS upon request. Subscriptions are available outside the United States from NTIS or appointed foreign dealers. New subscribers should expect a 30-day delay in receipt of the first issue.

U.S. Government offices may obtain subscriptions to the DAILY REPORTs or JPRS publications (hardcover or microfiche) at no charge through their sponsoring organizations. For additional information or assistance, call FBIS, (202) 338-6735, or write to P.O. Box 2604, Washington, D.C. 20013. Department of Defense consumers are required to submit requests through appropriate command validation channels to DIA, RTS-2C, Washington, D.C. 20301. (Telephone: (202) 373-3771, Autovon: 243-3771.)

Back issues or single copies of the DAILY REPORTs and JPRS publications are not available. Both the DAILY REPORTs and the JPRS publications are on file for public reference at the Library of Congress and at many Federal Depository Libraries. Reference copies may also be seen at many public and university libraries throughout the United States.